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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/600,658
Filing Date: June 23, 2003
Appellant(s): KANNO ET AL.

Gregory J. Maier
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 6 May 2008 appealing from the Office action mailed 23 October 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is deficient. 37 CFR 41.37(c)(1)(v) requires the summary of claimed subject matter to include: (1) a concise explanation of the subject matter defined in each of the independent claims involved in the appeal, referring to the specification by page and line number, and to the drawing, if any, by reference characters and (2) for each independent claim involved in the appeal and for each dependent claim argued separately, every means plus function and step plus function as permitted by 35 U.S.C. 112, sixth paragraph, must be identified and the

structure, material, or acts described in the specification as corresponding to each claimed function must be set forth with reference to the specification by page and line number, and to the drawing, if any, by reference characters. The brief is deficient because the summary does not explain the subject matter defined in each of the independent claims.

The claim 1 language “to position the glass plate so as to conform the glass plate to the previously stored reference posture" closely mirrors the language of the specification page 4, lines 8-11. This claim 1 limitation has little resemblance to any portion of page 16, line 8 to page 22, line 15 as referred to in the summary (Brief, page 3, 5th footnote).

The passage at pages 16-22 relate to the entire “method” of actually positioning and conforming (page 20, lines 24 and 27) as shown by multiple roller movements (page 17, lines 13-14 and figures 6A to 6F). But the mirrored passage of page 4, lines 8-11, pertains to “moving a roller” - a single step of the entire positioning/conforming.

In other words: Examiner interprets the specification as discussing both intention/purpose of moving a single roller (i.e. to position so as to conform the plate in the future), and the actual conforming/positioning process

In still other words: the method is a positioning method. Each step in the method is for the purpose “to position…so as to conform”. The claim 1 language “to position the

glass plate so as to conform the glass plate to the previously stored reference posture" relates to the intention/purpose, not a step of positioning nor a step of conforming. It is not reasonable to interpret claim 1 by focusing on pages 16-22; page 4 lines 8-11 suggests that the language is broad enough to read on an intention/purpose.

(6) Grounds of Rejection to be Reviewed on Appeal

WITHDRAWN REJECTIONS

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner.

The rejection of claims 1, 4-6, 11, 12 and 25-23 under 35 USC 102(b) as anticipated by, or in the alternative, under 35 USC 103(A) as being obvious over Letemps 5226942.

This rejection is dropped in view of Appellant's arguments on page 10 of the Brief.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,226,942	LETEMPS	7-1993

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 4-6, 11-12 and 25-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Letemps 5226942.

In order to examine the claims, Examiner first interprets independent claim 1, by giving the terms thereof the broadest reasonable interpretation in their ordinary usage in context as they would be understood by one of ordinary skill in the art in light of the written description in the specification, including the drawings, unless another meaning is intended by appellants as established in the written description of the specification, and without reading into the claims any limitation or particular embodiment disclosed in

the specification. See, e.g., In re Am. Acad. Of Sci. Tech. Ctr, 267 F.3d 1359, 1364, 70 USPQ2d 1 827, 1830 (Fed. Cir. 2004); In re Morris, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997); In re Zletz, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989). As illustrated by the specification and figure 6, the plain language of claim 1 specifies a step of conveying (of any direction and amount, however small) a glass plate using a roller conveyor (of any size or type) that has a plurality (i.e. at least two) rollers – each which has a rolling axis. The plain language of claim 1 further requires a moving step in which at least one of the rollers move (by any amount, however small) in a direction substantially parallel to the rolling axis, when the at least one is in contact with the conveying plate, for the purpose of positioning the plate to conform the plate to a posture.

Claim 1: A method for positioning a glass plate, comprising:

See the last sentence of the Letemps abstract. This limitation is not in dispute.

conveying a glass plate by a roller conveyor including a plurality of rollers, each roller having a rolling axis;

See figure 3 of Letemps. Any one roller 23 is one of the plurality. Any 29 is a second of the plurality. This limitation is not in dispute.

determining a first posture of the glass plate being conveyed by the roller conveyor;

See Letemps, col. 6, lines 38-40. This limitation is not in dispute.

comparing the first posture to a previously stored reference posture;

See Letemps, col. 6, lines 45-50. This limitation is not in dispute.

and moving at least one of the plurality of rollers in a direction substantially parallel to the rolling axis when the at least one of the plurality of rollers is in contact with the glass plate in conveyance,

This limitation is in dispute. Looking to figure 3 of Letemps: Roller 29 is moved in an arc, via mechanisms 35-36. See figure 2 which shows feature 17 being pivoted. Although not shown in the Letemps drawing, transverse movement (i.e. in a direction substantially parallel to the rolling axis) is also disclosed: (see col. 3, lines 6-8).

Examiner found that the claim language reads on the arc movement. It appears that this has not been disputed and thus appellant does not wish the claim to exclude arc movements from the "substantially parallel" language. Examiner's rationale was:

When the roller is moving in an arc, the instantaneous movement of the roller is in a direction substantially parallel to the rolling axis. When something moves in an arc, the instantaneous direction would be the liner tangent to the arc. As per col. 1, line 45 of Letemps, 1/10 of a millimeter (i.e. 100 microns) is a relevant distance in the present technology area – it is deemed that over a distance of 100 microns, the Letemps movement would be "substantially parallel to the rolling axis". This is NOT to be interpreted as Letemps moves only 100 microns, rather that the claim is comprising in

nature, and thus there only needs be a movement which is substantially parallel. Clearly the claim permits additional movement – one cannot avoid infringement merely by adding an additional movement to applicant's movement.

Letemps does not disclose the moving occurs "when the at least one of the plurality of rollers is in contact with the glass plate in conveyance".

Letemps takes a picture of the sheet 18 while in furnace 19, then moves the curving machine 17 and the rollers, then the sheet enters 17 where it is shaped, then removed from 17. Col. 3, lines 15-25 teaches that the curving machine can be left in place, "or more simply...the taking over tool is replaced between two between two successive glass bodies…." To paraphrase: curving machine 17 is re-centered between two glass bodies.

Obvious to re-center 17 while sheet is in 17, rather than after sheet is ejected from 17

It would have been obvious to return the frame/rollers back to center while the glass plate is still on the rollers, so that each plate is better aligned with additional processing/packaging equipment. For example, if the glass sheet is 1 cm off center in the furnace 19, one would adjust curving machine 17 by 1 cm. But that adjustment would still remain when the glass entered conveyor. Thus the glass sheet would be off by 1 cm, in the conveyor. However, if the curving machine is re-centered to perfect

alignment (col. 3, line 22) when the sheet remains in the curving machine, the sheet too will have perfect alignment as it enters conveyor 20.

Alternative rationale for obviousness:

Even without the advantage of having all of the plates aligned after leaving the rollers, such would have been obvious because rearranging the order of steps is generally not a patentable invention. Knowing that the rollers have to be re-centered each time, it would have been obvious to do it when the glass is still in contact with them – or after they are have left.

From MPEP 2144.04

C. Changes in Sequence of Adding Ingredients
Ex parte Rubin , 128 USPQ 440 (Bd. App. 1959) (Prior art reference disclosing a process of making a laminated sheet wherein a base sheet is first coated with a metallic film and thereafter impregnated with a thermosetting material was held to render prima facie obvious claims directed to a process of making a laminated sheet by reversing the order of the prior art process steps.). See also In re Burhans, 154 F.2d 690, 69 USPQ 330 (CCPA 1946) (selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results); In re Gibson, 39 F.2d 975, 5 USPQ 230 (CCPA 1930) (Selection of any order of mixing ingredients is prima facie obvious.).

Third rationale for obviousness:

There is still the further advantage of saving time: one would save time by re-centering the rollers, while the glass is still in contact, rather than waiting until after they have left the rollers. The process could save time by not having the next sheet wait for the machine to re-center.

Fourth rationale for obviousness:

Still further, as indicated by the Supreme Court in KSR vs. Teleflex:

When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense. In that instance the fact that a combination was obvious to try might show that it was obvious under §103.

It would have been obvious to try to re-center the rollers prior to the ejection of the glass sheet – since there is a finite number of predictable solutions (i.e. 2 prior to ejection vs. after rejection). Col. 2, lines 48-49 of Letemps teaches a market pressure of high output rates. The re-centering prior to ejection is deemed to be of ordinary skill and common sense. Performing two steps simultaneously, rather than sequentially, is generally not a matter of innovation.

to position the glass plate so as to conform the glass plate to the previously stored reference posture,

Re-centering to the perfect alignment (col. 3, line 22) with the glass sheet still on would result in the sheet conforming to the ideal alignment.

wherein the moving the at least one of the plurality of rollers includes moving each of the at least one of the plurality of rollers independently with respect to each other roller of the plurality of rollers.

The movement of one roller 29 (which is in contact with the glass sheet), would be independent of any roller 23. Whereas Appellant discloses having more than one roller moving, the claims are not limited. Only one roller needs to move. Nor does

claim 1 preclude more than one roller moving in tandem with "the at least one". The claims are comprising in nature and thus are open to having any number of other rollers that are not part of the plurality.

As indicated in prior actions: As to the "independently" limitation: it is noted that such is not defined nor described in the specification. Nor is there any special art-recognized meaning ascribed to this. Using the plain meaning for "independently" it is deemed that Letemps meets the limitation in the following ways: 1) roller 29 moves independently of roller 23. 2) All of the rollers 29 are part of the "at least one", thus the collective "at least one" moves independently of roller 23. 3) the each roller 29 has is own path – those the further from the pivot point the faster the movement. Since each movement is at a different speed from the others, each movement is independent. Examiner realizes it is quite easy to see a difference between applicant's individual movement, and that of Letemps. However, Examiner cannot reasonably indicates that one interpreting the claims in light of the specification would see that the claims exclude Letemps – most notably because it would require an unreasonable narrowing of the claims that would permit easy avoiding of infringement, merely by inter-relating roller movements. Examiner should not indicate that claims should be interpreted more narrowly than applicant has clearly demonstrated.

Claim 4: The using, recognizing and comparing steps are disclosed at col. 6, lines 38-61. It is deemed that the "supplying a signal" corresponds to finding an "amount" – whether it be found through look-up in a data base, or found via calculation.

The amount is deemed to be an "axial" displacement amount, based on the degree the roller's axis is angularly displaced. Note appellant's page 14, line 11 which indicates "D" is the amount and figures 8-9 which shows this amount "D" is an angular displacement of an axis. The adjective "axial" serves to indicate what is displaced, not a direction.

Claim 5: Examiner could not find any relevant description of the entire subject matter of the claim. It is deemed that the plain reading of the claim is that the sequence of the rollers is "one after another" because 1) figure 6 shows that movements are simultaneous with other movements and 2) under the rules of grammar, modifiers serve to modify the closest relevant item. In other words: it may be that appellant intended the sequence to be a temporal one of plural moving steps. However, the claim states that the rollers are in sequence. Most importantly, appellant's movements are interrelated (not done 'independently') e.g. figure 6A-6F and they are very much moving at the same time, and not one <u>after</u> another.

<u>Alternative interpretation for claim 5</u>

If claim 5 requires sequential movement of two rollers: the rollers would move (i.e. rotate) in sequential order as the glass sheet touches the rollers in sequence.

Claims 6, 11 and 25-27 are clearly met.

Claim 28 is clearly met, except for the a plurality of actuators and the limitations regarding movement. It is clear that there is plurality of actuators: for example the actuator that causes the frame to pivot and the actuator which causes the glass sheet to move along the conveyor via roller rolling action. The "moving at least two of the

plurality of rollers…" is clearly met by the pivoting action. As to "wherein each of the at least two of the plurality of rollers is moved by a different one of the plurality of actuators". It is noted that there is no indication as to what this actuator is different from – nevertheless each of the Letemps actuators is different from one another – at least in its location. If this limitation is suppose to mean that one actuator causes one roller to move, and a "different" actuator causes another roller to move: this is met because one actuator causes the translational motion of one roller, and the other actuator causes rotational motion in another roller. There is nothing which prohibits each of the actuators from moving both of the rollers. It is noted that there is no requirement in the claim that the "is moved" limitation of the last two lines is the same movement of the moving step. Claim 29 is clearly met.

Claim 30: it is clear that one roller would start moving (rolling) before the other because the glass rolls on the rollers sequentially. Thus it is deemed the movements are independent- because they start and end at different times.

Claim 31: it is clear that some of the rotational movements would be simultaneous.

(10) Response to Argument

The arguments pertaining to anticipation are not responded to because the rejection is not maintained.

The two main arguments: 1) the proposed modification would not result in the claimed method, and 2) Letemps teaches away from the claimed moving step.

It is appellant's position that reorienting a sheet while it is in contact with 17 of Letemps so as to permit the sheets to have substantially the same orientation for the rest of the processing is not moving at least one roller in a direction substantially parallel to the rolling axis to position the glass plate so as to conform the glass plate to the previously stored reference posture. However examiner could find nothing to explains why appellant finds this to be true. Since the argument (first full paragraph, page 24, Brief) italicizes the phrase "to position the glass plate so as to conform the glass plate to the previously stored reference posture", Examiner assumes that this what appellant believes is lacking. Looking to page 14 of the 9/20/2007 response, appellant points out that Letemps has 'no reason' to orient the glass sheet. Thus it appears that appellant is literally interpreting "to position" and "to conform" as being reasons for moving. Examiner finds that the rational for moving to fail to define over Letemps.

A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Page 4, lines 8-11 of the present specification uses substantially the same language of "to position" and "so as to conform" - it relates to a step of only moving a single roller. It is clear that a single roller does not result in the conforming/positioning -

rather it reflects the purpose/intention of the step: to obtain the final positioned/conformed sheet.

Claim 1 requires: conveying, determining, comparing, and moving steps. Appellant's usage of "to position" rather than 'positioning' and "to conform" rather than "conforming", suggests that such are not steps of the same nature as conveying, determining, etc.

Furthermore, given that $1/10^{th}$ mm (Letemps, col. 1, line 45) can be a known standard, and that slippage is known, it would be reasonable to assume that appellant does not wish the claims to require 100% perfect conforming.

It is clear that since the Letemps process causes the glass sheet to be properly oriented on the machine 17 (by orienting the machine), that the obvious modification of adjusting the machine to its "perfect alignment" (col. 3, line 22) would result in the sheet conforming to the memorized image (col. 6, line 47.)

The second argument is that Letemps teaches away from the claimed invention, because at col. 2, lines 6-22 and col. 3, lines 9-25 teaches away from the invention. Letemps does not teach away from Applicant's claimed invention, or from the prior art combination because the disclosure of this reference does not criticize, discredit, or otherwise discourage the invention or the combination. *In re Fulton*, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1145-46 (Fed. Cir. 2004). Letemps criticizes "centering virtually at the same instant as taking-over" as being a nuisance (col. 2, lines 8-9), encumbering the taking-over zone (col. 2, lines 41-42) , and increases the cycle time

(col. 2, lines 47-48). The proposed/obvious modification has nothing to do with re-centering at the same instant as taking-over. Rather the obvious modification is to move the machine 17 (and thus position the glass sheet therein) well after the taking-over, but before the ejection from 17.

Furthermore, as Examiner understand the paragraph bridging cols 1-2 of Letemps, the prior art method of positioning during the taking-over causes permanent markings on the sheets due to slippage on the rollers. The proposed modification would not have such slippage or markings, because the sheet would be repositioned along with the machine 17 because there would be no relative movement between the two. In other words: Letemps teaches away from relative transverse movement between the rollers and the sheet; but this is not the propose modification. Letemps has no comment on movement of the sheet while it is in 17 – thus it cannot be said that Letemps criticizes or otherwise teaches away from doing so.

Appellant argues that Letemps re-centers between successive bodies. This is true but not relevant – one would have been motivated to change this for the reasons set forth in the rejection.

Claim 5

It is argued that there is no reason to modify Letemps in the fashion recited in claim 5. This is not understood. The rejection is makes no indication of any modification to arrive at the invention of claim 5. Although the Although the claims are interpreted in light of the specification, limitations from the specification are not read into

the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The rejection is not based on the movements being the same as applicant's movements shown in figures 6A-F. The claims are very broadly constructed and read on any sequential rollers (or, alternatively, any sequential moving steps).

Claim 11: It is argued that claim 11 recites bending a glass plate in which the glass plate has been positioned. See col. 2, lines 1-4 of appellant's specification which discloses after the positioning, the sheet is bent. That is, the glass no longer has the same position as after the positioning. The claim does not require a step of positioning per se, even though the claim says the method is "for positioning" and that is used "to position". Never is a position given. Thus the claim does not have a narrow interpretation. Appellant's plate is nearly always moving, as is Letemps'. New positions are created continuously. Examiner fails to find a reasonable way to interpret claim 11 that excludes Letemps' movements, while reading on appellant's. The claim 11, line 2 "for positioning" does not state "for said positioning" – thus the claim 11 positioning, can be any positioning – including positioning occurring before, during or after the positioning of claim 1. Thus the translation along furnace 19 is for positioning "so as to conform" the sheet in the future positioning step.

Regarding claim 12: It is argued that the rejection is based on a speculative interpretation that includes unrelated past actions. Appellant gives no indication as to why the claim precludes past actions. Applicant has no step of moving a roller in

vertical direction (compared to claim 1's moving). Since applicant recites a "moving" step in claim one, but "making use" of movement in claim 12: the difference in language suggests that appellant did not intend a moving step in claim 12. The suggested claim interpretation that claim 12's reference to "vertical movement" requires a moving step ignores the tenet of claim construction that different words used in different used in different claims are presumed to have different meanings. *Karlin Tech. Inc. v. Surgical Dynamics, Inc.*, 177 F.3d 968, 971-72, 50 USPQ2d 1465 (Fed. Cir. 1999) (recognizing "the common sense notion that different words or phrases used in separate claims are presumed to indicate that the claims have different meanings and scope."). As per page 12 of the 6/22/2007 of the non-final rejection, the Office informed applicant of how the claim was being interpreted. Only now does appellant dispute the interpretation.

It is further argued that the final rejection ignores the phrase "the bending of the positioned glass plate is performed". It is clear that the Letemps sheet is bent; e.g. see title of Letemps.

It is further argued that the performance of glass curving in Letemps does not include any vertical movement of any rollers. This is not relevant because the claim does not require that the performance have any vertical movement. The claim merely requires that movement be used. There is no requirement that the movement be simultaneous with the performance.

Claims 28, 29 and 31

It is argued that using plural actuators with Letemps would result in all of the rollers being moved by the same additional actuators. Examiner agrees, but fails to see the relevance. The claims do not preclude all of the rollers begin moved by the same actuator . The claims requires that one roller is moved by one actuator, and a second roller is moved by a second actuator. The claims do not preclude the first actuator also moving the second roller, nor the second actuator moving the first. The claims do not stipulate what is not moved.

Examiner has not addressed all of the other arguments made by appellant because they are substantially the same as arguments already addressed in this Answer. For example, the arguments regarding claim 33 are not addressed, because the same issue was addressed in the treatment of claim 12.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/John Hoffmann/

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